

Amendments to the Specification

Please replace the paragraph on page 7, line 3 with the amended paragraph below.

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A system and method are presented whereby substantially complete neutralization of an electrical charge between a semiconductor wafer and an electrostatic chuck (hereinafter "chuck") may be achieved, by monitoring the attractive force between the wafer and the chuck. Present systems are based on a fixed estimate of the length of time required to neutralize the electric charge holding the wafer in the chuck. However, if this estimate is incorrect, complete neutralization may not occur. A substantial attractive force may then remain, making removal of the wafer problematic. If the attractive force is not completely neutralized before the lifter pins attempt to remove the wafer, the wafer may be suddenly and violently ejected from the chuck surface. This can result in a major loss of tool time (the semiconductor fabrication system may be down for several hours), while a dropped or broken wafer is retrieved, and the tool is cleaned and prepared for use again. Furthermore, defects in the wafer can also damage the tool or harm other wafers being processed. The loss of a wafer is very costly, since a broken or scrapped wafer may represent a substantial loss in sales. A chipped wafer that breaks at a later stage in the manufacturing process (e.g., at the point where the wafer is sectioned into individual semiconductor chips) may result in even greater financial loss – since the ~~farther~~ further down the process, the more valuable the wafers are. In such cases, it is also much harder to identify the root cause of the breakage.